

WHAT IS CLAIMED IS:

1. A solid state image pickup device,
comprising:

solid state image pickup means for optically
5 reading an image and converting the image into an
electrical image signal;

memory means for storing a smear reference
amount of the solid state image pickup means; and

calculation means for calculating a physical
10 amount proportional to a received light amount of the
solid state image pickup means based on an output of
the electrical image signal from the solid state
image pickup means,

wherein the electrical image signal is
15 corrected based on the smear reference amount stored
in the memory means and an output of the calculation
means.

2. A solid state image pickup device according
20 to claim 1, wherein the smear reference amount is
acquired by calculating based on a smear amount and
the physical amount proportional to the received
light amount when a light source is turned on.

25 3. A solid state image pickup device according
to claim 1, wherein the smear reference amount is
acquired by dividing a smear amount by the physical

amount proportional to the received light amount when a light source is turned on.

4. A solid state image pickup device according
5 to claim 2 or 3, wherein the smear amount is a dummy pixel output value when the light source is turned on.

5. A solid state image pickup device according
to claim 2 or 3, wherein the smear amount is an
10 average value of dummy pixel output values when the light source is turned on.

6. A solid state image pickup device according
to claim 2 or 3, wherein the smear amount is acquired
15 by subtracting one of an optical black pixel output value and an pixel output value of an image taking region when the light source is turned off, from an optical black pixel output value when the light source is turned on.

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7. A solid state image pickup device according
to claim 2 or 3, wherein the smear amount is acquired
by subtracting one of an average value of optical
black pixel output values and an average value of
25 pixel output values of the image taking region when the light source is turned off, from an average value of optical black pixel output values when the light

source is turned on.

8. A solid state image pickup device according
to claim 1, wherein the physical amount proportional
5 to the received light amount is one of a sum and an
average value of pixel outputs of the image taking
region of the solid state image pickup means.

9. A solid state image pickup device according
10 to claim 1, wherein the solid state image pickup
means includes a CCD linear sensor.

10. A method of correcting a smear of a solid
state image pickup device, comprising the steps of:
15 storing a smear reference amount of the solid
state image pickup means in memory means;
reading an image signal by a solid state image
pickup element;
calculating a physical amount proportional to
20 an amount of received light of the solid state image
pickup means based on an output of the electrical
image signal from the solid state image pickup means;
and
correcting the electrical image signal read
25 based on the smear reference amount stored in the
memory means and an output based on the calculated
result.

11. A method of correcting a smear of a solid
state image pickup device according to claim 10,
wherein the storing step comprises a step of
calculating a smear reference amount based on a smear
5 amount and the physical amount proportional to the
received light amount when a light source is turned
on.

12. A method of correcting a smear of a solid
10 state image pickup device according to claim 10,
wherein the storing step comprises a step of dividing
the smear amount by the physical amount proportional
to the received light amount when the light source is
turned on.

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13. A method of correcting a smear of a solid
state image pickup device according to claim 10,
wherein the storing step comprises a step of
calculating an average value of outputs of dummy
20 pixels generated when the light source is turned on.

14. A method of correcting a smear of a solid
state image pickup device according to claim 10,
wherein the storing step comprises a step of
25 subtracting one of an optical black pixel output
value and a pixel output value of the image taking
region when the light source is turned off, from an

optical black pixel output value when the light source is turned on.

15. A method of correcting a smear of a solid
5 state image pickup device according to claim 10,
wherein the storing step comprises a step of
subtracting one of an average value of optical black
pixel output values and an average value of pixel
output values of the image taking region when the
10 light source is turned off, from an average value of
optical black pixel output values stored after the
light source is turned on.

16. A method of correcting a smear of a solid
15 state image pickup device according to claim 10,
wherein the reading step comprises a step of
calculating one of a sum and an average value of
pixel outputs of the image taking region of the solid
state image pickup means.

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17. A recording medium that stores the
procedure of smear correction according to any one of
claims 10 to 16.